UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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Ref: EPR-N

SEP 16 2008

Mr. Michael Collins
Area Manager
Bureau of Reclamation
Eastern Colorado Area Office
11056 West County Road 18E
Loveland, CO 80537-9711

Re: Southern Delivery System, Colorado Springs, CO, Draft Environmental Impact Statement, CEQ# 20080072

Dear Mr. Collins:

In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and our authority pursuant to Section 309 of the Clean Air Act (CAA), 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency, Region 8 (EPA) has reviewed the Bureau of Reclamation's (Reclamation) Draft Environmental Impact Statement (DEIS) for the Southern Delivery System (SDS) project.

The City of Colorado Springs, City of Fountain, Security Water District, and Pueblo West Metropolitan District (the Participants) have requested contracts with Reclamation that would allow development of the SDS project. SDS is a proposed regional water delivery system designed to serve most or all of the Participants' water needs through 2046. As proposed, SDS would deliver Frying Pan-Arkansas (Fry-Ark) Project water and non-Fry-Ark Project water from the Arkansas River near the city of Pueblo to the Participants' service areas. The DEIS describes and analyzes the potential environmental effects of seven alternatives, including a no action alternative, on resources in the Arkansas River Basin in Colorado.

The project area for the Proposed Action, which is also Reclamation's Preferred Alternative, would extend northward from the Arkansas River and include a pipeline from Pueblo Reservoir to the city of Colorado Springs. EPA is a Cooperating Agency on this project and has worked with Reclamation, providing comments on preliminary draft chapters of the DEIS, among other activities. Throughout our review of preliminary drafts, EPA has expressed concerns about impacts to Fountain Creek water quality from return flows resulting from the Proposed Action, impacts to wetlands and other water resources, and the need for additional analysis of potential water quality and wetland impacts.

EPA and Reclamation have met several times to discuss the type of water quality assessment approach needed in order to provide a comprehensive analysis of the impacts to water quality under the different alternatives. Reclamation has committed to complete this additional water quality analysis and will release it to the public for a 45-day comment period. EPA will reserve its comments on the water quality impacts from SDS until EPA has had an opportunity to review the additional analysis during the public comment period. EPA will provide a rating of the overall Draft EIS at that time.

EPA commends Reclamation's efforts to provide additional water quality analysis that we believe is critical to understanding the environmental impacts of SDS on water bodies in the project area. EPA Region 8 is available to provide assistance to your staff on this additional analysis.

If you have any questions or would like to discuss this process further, please contact me at 303-312-6004. The most knowledgeable person on my staff with regard to this project is Jody Ostendorf, and she is available at 303-312-7814.

Sincerely,

Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

Enclosure

cc: Ms. Kara Lamb
Ms. Jaci Gould

Southern Delivery System
Detailed Comments (except water quality)

I. Identification of the Least Environmentally Damaging Practicable Alternative

Although the DEIS states that the Clean Water Act (CWA) 404(b)(1) guidelines, 40 CFR Part 230, (Guidelines) were considered throughout the alternatives analysis, EPA believes that additional information on water quality and wetlands impacts is necessary to fully assess the impacts of the Proposed Action and to identify the least environmentally damaging practicable alternative (LEDPA). This information generally is developed as part of the analysis required by the Guidelines. To demonstrate that the Proposed Action is the LEDPA, the applicant must show that, to the extent practicable, steps have been taken to avoid and minimize impacts to aquatic resources, as well as compensate for any remaining unavoidable impacts. Compensatory mitigation proposed by the applicant must be in accordance with the revised regulations set forth in the Final Rule entitled Compensatory Mitigation for Losses of Aquatic Resources (73 FR 19594, April 10, 2008). Given that the decision whether to issue a CWA Section 404 permit will be determinative of whether the Proposed Action can be implemented, EPA recommends that a complete Guidelines analysis be included in the supplemental information Reclamation is currently preparing.

II. Environmental Justice

The DEIS states that a relatively high proportion of the block groups along Fountain Creek is categorized as "potential concern" block groups (36 percent versus 22 percent for the overall potential project area) (Section 3.16.14, page 444). However, the DEIS does not fully identify and disclose impacts to the "high risk areas" depicted in Figure 94, page 445, which includes the East Side neighborhood bordering the east side of Fountain Creek northeast of Pueblo, and the communities centrally located within Pueblo at the confluence with the Arkansas River. Historically, Fountain Creek was a valued cultural and recreational resource for these communities. However, in recent years, the Pueblo City and County Health Department has posted warning signs advising residents not to enter or use Fountain Creek due to E. coli contamination and other contaminants. In addition to the potential for increased exposure to contaminants, these communities may experience increased erosion and flooding due to the return flows coming down Fountain Creek as a result of SDS. The communities that live in those areas are largely minorities and relatively poorer than the rest of Pueblo. Though the DEIS does not identify them, it is EPA's understanding that there are approximately 4,000 migrant workers in the area, some of whom live with relatives on the East Side.

The proposed mitigation includes proper rate design to minimize the potential for disproportionate impacts on low-income water users. However, the DEIS does not include mitigation to address the increased risk of exposure to contaminants and risk of flooding in Pueblo neighborhoods that have experienced flooding as recently as 2006 and 2007.

Allowing further impacts to Fountain Creek's water quality seems inconsistent with the many ongoing projects which seek to restore Fountain Creek's water quality and recreational amenities. These efforts include the Fountain Creek Crown Jewel Project spearheaded by Senator Ken Salazar's office, the Corps of Engineers Fountain Creek Watershed Study and Colorado Springs Utility's own Fountain Creek Recovery Project. EPA encourages Reclamation to provide more information in the FEIS regarding mitigation commitments to reduce risks of exposure to contaminants and risks of flooding in Pueblo neighborhoods.

III. Cumulative impacts of other regional water supply and storage projects

The DEIS does not consider two planned water projects that will be located in the same watershed as the SDS project in the cumulative impacts analysis for SDS. EPA understands that Reclamation did not evaluate the Preferred Storage Options Plan (PSOP) or the Arkansas Valley Conduit (AVC) projects in the cumulative impacts analysis because the projects have not been funded. Lack of funding, in and of itself, is not a sufficient basis to disregard these projects. Area policy-makers and community leaders consider PSOP, AVC and SDS to be part of regional cooperative efforts to address flood control and water quality problems on Fountain Creek. In addition, PSOP and AVC may impact water quality in the Arkansas River Basin which, as noted in the DEIS, is currently impaired in the project area for selenium and total recoverable iron, proposed to be listed as impaired for sulfate, and listed as of concern for salinity. By not considering the impacts of PSOP and the AVC on water quality in the Arkansas River, along with impacts from SDS, the total cumulative impacts to that resource, including impacts to the ecosystem and downstream users, cannot be fully assessed.

IV. Cumulative impacts from growth

The DEIS does not analyze the cumulative impacts from growth, particularly around the proposed reservoirs and the Banning-Lewis Ranch development. The DEIS states that full build-out could include 75,000 homes, and construction may include 2,500 homes per year. In addition to this identified development, any alternative which includes construction of a reservoir in close proximity to Colorado Springs will have the tendency to induce growth near the reservoir. While EPA agrees that the growth will eventually occur in that watershed, EPA believes that the cumulative impacts due to the increased flows from the reservoir and the additional developed flows from both an increase in impervious areas and landscape watering will cause greater water quality impacts than are currently identified in the DEIS. We recommend that the FEIS estimate those impacts and propose mitigation to address the cumulative impacts of induced growth.

Figure 3, Projected Location of Colorado Springs' Future Population Growth indicates that 60 percent of the highest density growth will be concentrated on the perimeters of the city. EPA recommends that the FEIS clarify whether this growth is infill or new residential development. Further, we suggest that the FEIS provide information about how water conservation and efficiency measures will be incorporated

into new residential developments. For example, the project proponent could consider ways to work with developers on commitments to include reclaimed water distribution systems for single or multi-family homes in new residential developments.

Communities across the country are using creative strategies to develop in ways that preserve natural lands and critical environmental areas, protect water and air quality, and reuse already-developed land. EPA supports these "Smart Growth" approaches in development planning that incorporate government and community partnering, environmental stewardship and transportation network enhancements in safety and functionality. We recommend that Reclamation encourage the project proponent to consider these approaches. National, state and local organizations have come together to form the Smart Growth Network (SGN), a voluntary initiative led by 36 partner organizations that are focused on development which benefits the economy, communities and ecological sustainability. For innovative solutions which address low-impact development, please visit EPA's Smart Growth Website at http://www.epa.gov/smartgrowth/index.htm.

V. Segmenting the project

The DEIS describes a plan to segment the project for permitting purposes by permitting the impacts due to the SDS reservoirs in the Corps of Engineers' individual permit, and permit all other SDS-related work under the appropriate Nationwide Permits. EPA objects to this approach since it artificially diminishes the impacts of the project. EPA recommends the FEIS confirm that all discharges of dredged or fill materials to waters of the United States will be permitted pursuant to one Individual CWA Section 404 permit issued by the Corps of Engineers.

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NOV 21 2008

Ref: EPR-N

Ms. Kara Lamb
Bureau of Reclamation, Eastern Colorado Area Office
11056 W. County Road 18E
Loveland, CO 80537-9711

Re: EPA Comments on the Southern Delivery System, Colorado Springs, CO Supplemental Information Report and DEIS Water Quality Analysis – CEQ# 20080072

20080072

Dear Ms. Lamb,

In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and our authority pursuant to Section 309 of the Clean Air Act (CAA), 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency, Region 8 (EPA) has reviewed the Bureau of Reclamation's (Reclamation) October 6, 2008 Supplemental Information Report (SIR) to the Draft Environmental Impact Statement (DEIS) for the Southern Delivery System (SDS) project. EPA submitted its initial comments on the DEIS to Reclamation on September 16, 2008 but withheld our comments on the water quality analysis until completion of the SIR. EPA's primary concerns with the SIR and the water quality analysis in the DEIS are highlighted below, with detailed comments enclosed for your consideration.

EPA's review of the SDS DEIS identified serious inadequacies related to the analysis of the project's impacts to water quality. To address EPA's concerns, Reclamation conducted extensive additional water quality analyses focusing on constituents of concern (e.g., *E. coli,* selenium and sulfate). Reclamation presented this additional information in the SIR. The water quality analyses in the SIR provide a more accurate representation of the likely impacts to water quality from SDS. By taking into consideration the changes in the Proposed Action, and addressing constituents of concern, the SIR presents valuable additional information.

Using information from the DEIS and the SIR, Reclamation performed further evaluation of the various project alternatives. Reclamation's new evaluation resulted in a significant change to the Proposed Action. The "Modified Proposed Action" would involve using Upper Williams Creek Reservoir for terminal storage, instead of building a reservoir at Jimmy Camp Creek. This change to the Proposed Action would avoid wetland impacts and eliminate impacts to cultural and paleontological sites at the Jimmy Camp Creek Reservoir site. In addition, the Modified Proposed Action would use a pipeline instead of Williams Creek to convey return flows from Williams Creek Reservoir to Fountain Creek. This change would provide additional wetlands protection and protection of habitat for the Arkansas darter, a Colorado threatened fish and Federal Endangered Species Act candidate species. Together, these changes to the Proposed Action would result in avoiding impacts to 15.6 acres of jurisdictional wetlands.

While EPA believes that Reclamation's Modified Proposed Action represents a significant improvement to the Proposed Action, we remain concerned about the impacts the project will have on water quality. The SIR confirmed that, even with the changes incorporated into the Modified Proposed Action, SDS would exacerbate existing water quality impairments to waterbodies within the Arkansas River Basin. These impacts would affect numerous water bodies in the Arkansas River Basin that the Colorado Water Quality Control Commission has identified as impaired due to exceedances of the applicable State water quality standards for selenium, *E. coli* and sulfate. Concentrations of all three of these pollutants would increase under the Modified Proposed Action The SIR does not include mitigation for these impacts. EPA believes these increased loadings should be mitigated, and that mitigation commitments should be part of the Final EIS and the record of decision (ROD). Furthermore, in light of these projected water quality standard exceedances, EPA is concerned that the Modified Proposed Action has been identified as Reclamation's preferred alternative, since it is our understanding that the U.S. Army Corps of Engineers (Corps) would not issue a Clean Water Act Section 404 permit for a project that would result in violation of water quality standards.

EPA is also concerned about indirect impacts from induced growth resulting from SDS. EPA believes that the indirect impacts due to the increased flows from the reservoir and the additional developed flows from both an increase in impervious areas and landscape watering will cause greater water quality impacts than are currently identified in the DEIS. Fountain Creek has historically experienced major flooding and erosion problems. SDS would result in a 40 percent mean annual streamflow increase to Fountain Creek at Pueblo, adding to these longstanding impacts. The significant impacts of those increased flows have not been sufficiently addressed in the DEIS. The Final EIS should include commitments to ensure that stormwater Best Management Practices are implemented for future growth in Colorado Springs.

Based on the procedures EPA uses to evaluate the adequacy of the information and potential environmental impacts of the proposed action and alternatives in an EIS, EPA is rating this DEIS as EC-2 (Environmental Concerns-Insufficient Information). An "EC" signifies that EPA's review of the DEIS has identified environmental impacts that should be avoided in order to fully protect the environment. In this case, the impacts include increased loading of *E. coli*, selenium and sulfate into the Arkansas River Basin, where numerous water bodies are listed by the State of Colorado as impaired for those constituents. The Modified Proposed Action appears

to violate or be inconsistent with achievement or maintenance of a national environmental standard. EPA is also concerned about increased flooding and erosion caused by SDS's return flows into Fountain Creek, which is already severely compromised. The "2" rating signifies that the DEIS does not provide adequate commitments to mitigation of the environmental impacts of the proposal. Because the DEIS identifies a Preferred Alternative (the Modified Proposed Action), this rating applies to that alternative only. A copy of EPA's rating criteria is attached.

As stated above, EPA believes the changes made to SDS as a result of the additional analyses and evaluations performed by Reclamation have resulted in a much improved project, with fewer impacts to water quality, cultural and paleontological resources, waters of the U.S., and habitat for a federal candidate species. As recommended in the detailed comments, EPA strongly encourages Reclamation to include mitigation commitments to offset the water quality impacts that are projected to result from SDS, and include them in the Final EIS. These mitigation commitments should be implemented through the ROD.

Our detailed comments are enclosed. EPA appreciates the extensive collaboration with Reclamation in addressing our concerns through this NEPA process. If we may provide further explanation of our remaining concerns, please contact Jody Ostendorf of my staff at (303) 312-7814, or me at (303) 312-6004.

Sincerely,

Larry Svoboda
Director, NEPA Program

Enclosure:

Ratings criteria

Southern Delivery System (SDS)
Detailed Comments

I. Impaired Waterbodies Potentially Impacted by Proposed Project

EPA notes the multiple waterbodies in the watershed potentially impacted by the proposed action that are recognized as impaired and are on the State of Colorado 2008 Clean Water Act §303(d) List of Water-Quality-Limited Segments Requiring TMDLs (303(d) List). Table 1 displays some of the 303(d)-listed waterbodies in the Arkansas River Basin and their impairments. EPA is concerned about the potential of the Modified Proposed Action to exacerbate existing water quality impairments in the Arkansas River Basin, any potential increases in pollutant loading into that system, and the cumulative effects from such increases. Bacteria (as measured by *E. coli*) and selenium impairments are widespread throughout the watershed, and difficult to remedy through point source controls alone. Further, any worsening of these conditions increases the future required efforts and costs associated with remediation and restoration.

Table 1. Excerpts from State of Colorado 2008 CWA §303(d) List

Waterbody ID	Segment Description	Impairment	Priority
COARFO01a	Fountain Ck and tributaries above Monument Ck	*E. coli*, selenium	High / Low
COARFO02a	Fountain Ck, Monument Ck to Hwy 47	*E. coli*	High
COARFO02b	Fountain Ck from Hwy 47 to the Arkansas River	Selenium	Low
COARFO04	All tributaries to Fountain Ck, except NF and AF Academy lands	*E. coli*	High
COARFO06	Monument Ck from National Forest to Fountain Ck	Selenium	Low
COARLA01a	Arkansas River, Fountain Ck to Colorado Canal headgate	Selenium, sulfate	Low
COARLA01b	Arkansas River, Colorado Canal headgate to John Martin Reservoir	Selenium	Low
COARLA01c	Arkansas River, John Martin Reservoir to stateline	Selenium, uranium	Low
COARLA11	John Martin Reservoir	Selenium	Low

Both bacteria and selenium impairments are likely to be exacerbated by the Modified Proposed Action due to the likelihood of increased nonpoint source loading associated with project development, land use changes, increased groundwater return flows, and increased stormwater return flows. The mainstem of Fountain Creek was placed on the Colorado 2006 303(d) list for *E. coli*, and is a high priority for completion of a Total Maximum Daily Load (TMDL) addressing this water quality impairment. Most tributaries to this waterbody (Segment 4) were placed on the 303(d) list for *E. coli* in 2008. Both naturally occurring and human-exacerbated selenium loading has been an

ongoing issue within the basin for many years and selenium impairments exist from Fountain Creek downstream through the Arkansas River to the state line. TMDL development has not yet started for either pollutant, but TMDL requirements could impact permit limits for all new and existing dischargers.

The expected return flows from SDS, and associated increased pollutant loading, will likely require additional pollutant reductions. Increased residential and commercial irrigation, and impervious surface associated with new development will most likely further increase loading of bacteria and pathogens to Fountain Creek during runoff. The Modified Proposed Action will likely have direct impacts on the already exceeded assimilative capacity for *E. coli* and selenium, exacerbating the difficult cleanup plans and wasteload allocations required in the forthcoming TMDL. EPA urges Reclamation and the project proponents to firmly commit to mitigation measures for nonpoint source reductions and controls designed to minimize *E. coli* and selenium loading in the Arkansas River Basin. Specific nonpoint source mitigation agreements should be a commitment in the Final EIS along with quantifiable reduction targets for each mitigation activity. These agreements and other mitigation should be implemented through the ROD.

- *E. Coli*

EPA is concerned about how the Modified Proposed Action could impact densities of *E. coli* bacteria in the Arkansas River Basin, where the water quality standard (WQS) for bacteria is regularly exceeded in multiple waterbody segments. The potential impacts of the Modified Proposed Action could be particularly challenging for attempts to control point and nonpoint source bacteria loading to the system during wet weather events when the concentrations tend to be highest. The DEIS and supporting technical reports utilized an unconventional assessment of bacteria impairment, relating the problem only to streamflow during "storm events." The original water quality assessment did not appear to properly analyze the relationships between pollutant loading (flow X concentration) and stormflows, and how bacteria enter a habitat or waterbody via both point and nonpoint sources. In contrast, the SIR includes an analysis that follows published, peer-reviewed practices of pollutant loading analysis and Colorado Department of Public Health and Environment (CDPHE) published protocol for assessing assimilative capacity and impairment. EPA commends Reclamation for the supplemental *E. coli* analyses in the SIR.

E. coli is an indicator used to monitor levels of bacteria and pathogens, which present a serious threat to human health. *E. coli* lives in the intestines of warm-blooded animals, including humans, and its already overabundant presence in Fountain Creek presents a health threat to swimmers and others recreating in or on the water. High levels of *E. coli* are linked to increased gastrointestinal illnesses occurring in humans recreating in and on waters impaired by *E. coli*. When *E. coli* densities increase, there is an increase in the frequency and intensity of human illnesses from bacteria and pathogens. Colorado's *E. coli* WQS is implemented utilizing a geometric mean applied to all data collected within any calendar month (a 30-day geometric mean). The geometric mean of

the data collected within any month is then assessed against the chronic *E. coli* criterion (generally 126 cfu/100 ml sample) for each month where observations exist. Bacteria concentrations can be highly variable in aquatic environments, often varying several orders of magnitude over time and space. This statistic is applied to water quality bacteria observations to normalize the variability in those data sets, making assessment determinations more robust, reliable and dependable. This same protocol applies to monitoring requirements for facilities with discharges that have CWA National Pollutant Discharge Elimination System (NPDES) permits that contain *E. coli* permit limits and monitoring requirements.

The Modified Proposed Action could exacerbate an acknowledged, existing water quality problem, with potential direct consequences to human health. As compared to existing conditions, the SIR *E. coli* analysis projects decreased *E. coli* densities in Fountain and Monument Creeks, and increasing *E. coli* densities in the mainstem Arkansas River (SIR 5.4.2.2 *E. coli*, Table 11, and Appendix B Tables pp.B-1 and B-2) for the preferred alternative. The upstream decreases in *E. coli* loading are attributed to the diluting effect of properly functioning, State-permitted WWTFs. EPA commends Reclamation for the changes incorporated into the Modified Proposed Action, which will lead to the expected decreased loading compared to the original Proposed Action, while acknowledging the corresponding increased *E. coli* loading expected in the downstream Arkansas River segments. EPA is concerned about any potential increased *E. coli* loading in this watershed, particularly from nonpoint sources associated with further development. Consequently, EPA encourages Reclamation and the project proponents to firmly commit to mitigation measures for nonpoint source reduction and control designed to minimize *E. coli* loading in the basin. Specific nonpoint source mitigation agreements should be a commitment in the Final EIS along with quantifiable reduction targets for each mitigation activity.

- Selenium

Fountain Creek suffers from a longstanding excessive loading of selenium, as it exceeds the underlying water quality standards for selenium at multiple locations throughout the watershed (see Table 1 above). This problem has been recognized by the WQCC for some time, as evidenced by the Commission's 303(d)-Listings; actions to adopt temporary modifications; and site-specific selenium numeric criteria across multiple Fountain Creek watershed segments. This problem persists in the downstream segments of the Lower Arkansas River and the SIR confirms that the project will likely exacerbate the downstream impairments.

Fountain and Monument Creeks and the Arkansas River are waterbodies impaired for selenium, experiencing a complex combination of point source and nonpoint source selenium loading associated with selenium-rich soils. The analysis of selenium indicates that selenium concentrations are expected to remain constant or slightly decrease compared to the current impaired conditions in Fountain and Monument Creeks (SIR pages 63-64 and Appendix B). In contrast, selenium concentrations downstream in the Arkansas River are expected to increase by 100%, 19%, and 17% at the Moffat,

Avondale, and Catlin sites, respectively (SIR Appendix B, Cumulative Effects Analysis, Dissolved Selenium – Simulated 85th Percentile). Many of the Arkansas River mainstem segments are already impaired for selenium (see Table 1 above). The SIR dissolved Selenium discussion at pp.63-64 at 5.4.2.2) does not acknowledge this increased concentration and loading, while Table 2, Summary of Updated Environmental Consequences, Water Quality p.20) compares the direct effects changes to the constructed No Action Alternative (see Existing Conditions comment below).

While the upstream (Fountain/Monument) loading reductions are encouraging projections, the downstream (Arkansas River) increased selenium loading is a potentially significant impact. EPA considers the cited percentage increases to be a significant impact on an already impaired waterbody. Additionally, EPA is concerned that selenium levels may increase beyond the upstream projections due to modeling uncertainties and nonpoint source loading being difficult to project into the future. With the additional return flows coming down Fountain Creek, compounded by impacts from growth, including increased irrigation and lawn watering on selenium-rich soils, nonpoint source loading may experience a "creeping" advance over time. Increased selenium concentrations could exacerbate the existing magnitude, duration and frequency of nonattainment of WQS. The Final EIS should evaluate and present options for mitigating the effects of the project on ambient selenium concentrations.

EPA encourages Reclamation and the project proponents to firmly commit to mitigation measures for nonpoint source reductions and controls designed to minimize selenium loading in the basin. Specific nonpoint source mitigation agreements should be a commitment in the Final EIS along with quantifiable reduction targets for each mitigation activity. EPA further recommends that the project proponents consider forming a Selenium Task Force, similar to what is being done in the Gunnison Basin, to study elevated selenium concentrations in the surface waters of the project area. The Gunnison group has implemented phytoremediation demonstration projects which use agricultural crops and trees to remove selenium from soils and water. The group is also doing studies using water quality and streamflow sampling on the impacts of land use changes, such as a greater demand for residential housing, on water quality, specifically selenium. More information on the task force is available at http://www.seleniumtaskforce.org/indexold.html.

- Sulfate in the Arkansas River

EPA is concerned that the Modified Proposed Action will result in higher sulfate concentrations in the lower Arkansas River, which is currently in non-attainment of the sulfate WQS. EPA notes that the Arkansas River below the confluence with Fountain Creek is impaired for sulfate in the 2008 303(d) list (see Table 1 above). The SIR Appendix B, Cumulative Effects Analysis for Sulfate projects a 6% increase from the Modified Proposed Action. EPA disagrees with the SIR's characterization of this increase as "negligible to minor." (SIR 5.4.2.2). Any measureable increased pollutant loading to an impaired waterbody is a potentially significant impact with associated cleanup requirements and costs.

The Final EIS should address how attainment might be achieved through mitigation. EPA encourages Reclamation and the project proponents to firmly commit to increased sulfate monitoring and, if necessary, mitigation measures for source reductions and controls designed to minimize sulfate loading in the basin. Specific sulfate monitoring and source mitigation commitments (if proven necessary by monitoring) should be a component in the Final EIS along with quantifiable reduction targets for each mitigation activity.

II. Use of Temporary Modifications to Water Quality Standards

EPA is also concerned with the DEIS and Supplemental Information Report's (SIR's) treatment and use of temporary modifications to water quality standards (WQS) that are due to expire in the next several years. The Colorado Water Quality Control Commission (WQCC) has provided temporary variances to the existing, underlying WQS for selenium, ammonia, copper, and sulfate in Arkansas River Basin segments potentially impacted by the proposed project (see Table 2 below, or the WQCC Regulations website: http://www.cdphe.state.co.us/regulations/wqccregs/index.html [Regulation 32, Tables, pp. 18-20]). These modifications are not intended to be used in assessment decisions.

Table 2. Selected Temporary Modifications to Water Quality Standards in Arkansas River Basin Waters Potentially Affected by SDS

Waterbody ID	Segment Description	Temporary Modifications
COARFO01a	Fountain Ck and tributaries above Monument Ck	Selenium (chronic) = 8.7 µg/l. Expires 12/31/2012.
COARFO02a	Fountain Ck, Monument Ck to Hwy 47	Copper (acute/chronic) = current condition. Expires 12/31/2009. Ammonia (acute/chronic) = TVS(old). Expires 12/31/2012.
COARFO04	All tributaries to Fountain Ck, except NF and AF Academy lands	Ammonia (acute/chronic) = TVS(old). Expires 12/31/2012.
COARFO06	Monument Ck from National Forest to Fountain Ck	Copper (acute/chronic) = current condition. Expires 12/31/2009. Ammonia (acute/chronic) = TVS(old). Expires 12/31/2011.
COARLA01a	Arkansas River, Fountain Ck to Colorado Canal headgate	Selenium (acute/chronic) = existing quality. Expires 12/31/2012. Sulfate = existing quality. Expires 12/31/2012. Ammonia (acute/chronic) = TVS(old). Expires 12/31/2011.

COARLA01b	Arkansas River, Colorado Canal headgate to John Martin Reservoir	Selenium (chronic) = current condition. Expires 12/31/2009. Ammonia (acute/chronic) = TVS(old). Expires 12/31/2011.
COARLA01c	Arkansas River, John Martin Reservoir to stateline	Selenium (chronic) = 22.5 µg/l. Expires 12/31/2012.

Because it is uncertain what action the WQCC will take with respect to these WQS upon their expiration dates, EPA recommends that all analyses follow the published State protocol for assessments provided in the Colorado Section 303(d) Listing Methodology – 2008 Listing Cycle, p.27, Section I: Temporary Modifications. Specifically, when determining and discussing whether water quality standards will be exceeded, the existing (or projected) conditions should be compared against the underlying water quality standards, and not to any temporary modifications to these standards. A similar protocol exists for State-issued discharge permits to waters with temporary modifications to WQS. Consistent with these protocols, EPA recommends that the Final EIS utilize underlying WQS for all analyses and assessment purposes where temporary modifications to WQS exist.

III. Comparison of Project Alternatives to Existing Conditions

EPA is concerned that Reclamation compared the proposed project alternatives to an artificially-constructed No Action Alternative, rather than to existing conditions in the watershed (e.g., see SIR Table 2, Water Quality, p.20). The No Action Alternative implies significant actions that do not reflect current conditions. EPA believes that comparisons to currently existing conditions are the only way to assess the projected impacts to a meaningful baseline.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements
Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.